

Environmental Review Form for Argonne National Laboratory

Click on the blue question marks (?) for instructions, contacts, and additional information on specific line items.

(?)**Project/Activity Title:** NOvA Neutrino Experiment Construction Project

(?)**ASO NEPA Tracking No.** _____ (?)**Type of Funding:** _____
B&R Code _____

(?)**Identifying number:** _____ WFO proposal # _____ CRADA proposal # _____
Work Project # _____ ANL accounting # (item 3a in Field Work Proposal) _____
Other (explain) _____

(?)**Project Manager:** Richard Talaga Signature: Richard Talaga Date: 9/29/10

(?)**NEPA Owner:** Nancy VanWermeskerken^{UAV} Signature: _____ Date: _____

ANL NEPA Reviewer: M. A. Kamiya Signature: M. A. Kamiya Date: 9/24/2010

I. (?)**Description of Proposed Action:** The two-part adhesive is applied to extruded PVC panels. The panels, called modules because they are instrumented with optical fibers and sealed at their ends, are hoisted from the adhesive station to a nearby assembly stack. Modules are stacked on top of one another and a weight is applied for approximately 20 minutes while the two part adhesive cures. The footprint of the stack is 10 ft by 13 feet and there are 31 layers of stacked modules, resulting in a final height of 8 feet. We use four 55-gallon drums of part A and four drums of part B adhesive for the scope of this project. Most of the adhesive components are applied to modules. Once there is not enough adhesive in a drum to be dispensed, the plastic liner (with adhesive therein) of each drum is removed. The remaining adhesive is squeezed out of the liner and placed into the replacement drum. Spent liners are stored in a sealed drum and disposed by Waste Management when the project is complete.

II. (?)**Description of Affected Environment:** The project is conducted indoors in building 366. The air within the building is affected by the fumes from adhesive. Industrial Hygiene performed extensive testing, monitoring worker exposures and gas concentrations.

III. (?)**Potential Environmental Effects:** (Attach explanation for each "yes" response. See Instructions for Completing Environmental Review Form)

A. Complete Section A for all projects.

1. (?)Project evaluated for Pollution Prevention and Waste Minimization opportunities and details provided under items 2, 4, 6, 7, 8, 16, and 20 below, as applicable Yes No

2. (?)Air Pollutant Emissions: Yes No

Area and personal air samples for methyl methacrylate were collected during use of the glue dispensing apparatus for

preparation of the NOVA project full-scale prototype. Industrial Hygiene Sampling was conducted throughout large-scale prototype activities to provide detailed information on potential occupational exposures during construction of the full-scale instrument. Information on airborne methyl methacrylate level can provide a benchmark for planning control measures.

3. (?)Noise Yes No

4. (?)Chemical Storage/Use Yes No

The proposed activities will involve the use and storage of chemicals. The two-part adhesive is applied to extruded PVC panels. We use four 55-gallon drums of part A and four drums of part B adhesive for the scope of this project.

5. (?)Pesticide Use Yes No

6. (?) Polychlorinated Biphenyls (PCBs) Yes No

7. (?) Biohazards Yes No

8. (?)Liquid Effluent (wastewater) Yes No

9. (?)Waste Management

- a) Construction or Demolition Waste Yes No
- b) Hazardous Waste Yes No

Most of the adhesive components are applied to modules. Once there is not enough adhesive in a drum to be dispensed, the plastic liner (with adhesive therein) of each drum is removed. The remaining adhesive is squeezed out of the liner and placed into the replacement drum. Spent liners are stored in a sealed drum and disposed by Waste Management when the project is complete.

- c) Radioactive Mixed Waste Yes No
- d) Radioactive Waste Yes No
- e) PCB or Asbestos Waste Yes No
- f) Biological Waste Yes No
- g) No Path to Disposal Waste Yes No
- h) Nano-material Waste Yes No

10. (?)Radiation Yes No

11. (?)Threatened Violation of ES&H Regulations or Permit Requirements Yes No

12. (?)New or Modified Federal or State Permits Yes No

13. (?)Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste Yes No

14. (?)Public Controversy Yes No

15. (?)Historic Structures and Objects Yes No

16. (?)Disturbance of Pre-existing Contamination Yes ___ No X
17. (?)Energy Efficiency, Resource Conserving, and Sustainable Design Features Yes ___ No X

B. For projects that will occur outdoors, complete Section B as well as Section A. N/A

18. (?)Threatened or Endangered Species, Critical Habitats, and/or other Protected Species Yes ___ No ___
19. (?)Wetlands Yes ___ No ___
20. (?)Floodplain Yes ___ No ___
21. (?)Landscaping Yes ___ No ___
22. (?)Navigable Air Space Yes ___ No ___
23. (?)Clearing or Excavation Yes ___ No ___
24. (?)Archaeological Resources Yes ___ No ___
25. (?)Underground Injection Yes ___ No ___
26. (?)Underground Storage Tanks Yes ___ No ___
27. (?)Public Utilities or Services Yes ___ No ___
28. (?)Depletion of a Non-Renewable Resource Yes ___ No ___

C. For projects occurring outside of ANL complete Section C as well as Sections A and B. N/A

29. (?)Prime, Unique, or Locally Important Farmland Yes ___ No ___
30. (?)Special Sources of Groundwater (such as sole source aquifer) Yes ___ No ___
31. (?)Coastal Zones Yes ___ No ___
32. (?)Areas with Special National Designations (such as National Forests, Parks, or Trails) Yes ___ No ___
33. (?)Action of a State Agency in a State with NEPA-type Law Yes ___ No ___
34. (?)Class I Air Quality Control Region Yes ___ No ___

IV. Subpart D Determination: (to be completed by DOE/ASO)

Are there any extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal? Yes ___ No X

Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts? Yes ___ No X

If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211?

Yes ___ No X

Can the project or activity be categorically excluded from preparation of an Environment Assessment or Environmental Impact Statement under Subpart D of the DOE NEPA Regulations?

Yes X No ___

If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded.

Appendix B
B 3.6 Siting/Construction/Operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects.
B 3.8 Outdoor ecological/environmental research in small area.

If no, indicate the NEPA recommendation and class(es) of action from Appendix C or D to Subpart D to Part 1021 of 10 CFR.

ASO NEPA Coordinator Review: ~~Ken Chiu~~ KAUSHIK JOSHI

Signature: *KAUSHIK JOSHI*

Date: 9-30-10

ASO NCO Approval of CX Determination:

The preceding pages are a record of documentation that an action may be categorically excluded from further NEPA review under DOE NEPA Regulation 10 CFR Part 1021.400. I have determined that the proposed action meets the requirements for the Categorical Exclusion identified above.

Signature: *Peter R. Siebach*
Peter R. Siebach
Acting Argonne Site Office NCO

Date: 10/11/2010

ASO NCO EA or EIS Recommendation: N/A

Class of Action: _____

Signature: _____
Peter R. Siebach
Acting Argonne Site Office NCO

Date: _____

Concurrence with EA or EIS Recommendation: N/A

CH GLD: _____

Signature: _____

Date: _____

ASO Manager Approval of EA or EIS Recommendation: N/A

An ___ EA ___ EIS shall be prepared for the proposed _____ and _____ shall serve as the document manager.

Signature: _____ N/A
Dr. Joanna M. Livengood
Manager

Date: _____